

## BOOK NOTICE

PHILIP W. HENDRICK. 1984. *Population Biology, The evolution and ecology of populations*. 1998 printing. (ISBN 0-86720-043-X, pbk.) Jones and Bartlett Publishers International, 7 Melrose Terrace, London W6 7RL, ENGLAND and Boston, MA. \$47.50. 445 pp., numerous figures.

This text is a comprehensive resource for the study of population genetics and population ecology. Now in its 15<sup>th</sup> year, it has been reorganized into three parts that explore I) Basic principles of genetics, II) Population biology, and III) The interrelationship between these two fields. In each chapter you will find theoretical explanations, case studies, examples for relevant models, and graphics selected to highlight important topics. Short problem sets at the end of each chapter provide students the opportunity to practice using the models presented in the text. Part one provides students with a solid foundation in the field of genetics, with discussions covering major topics such as chromosomal variation, the Hardy-Weinberg Principle, and gene flow. The section on Population Biology begins with a discussion of factors influencing species distribution and abundance, and of population density and dispersion before entering into a discussion of demography. This provides a useful context for understanding growth models and population dynamics. A thorough presentation of interspecific competition, predator-prey interactions, and the theoretical models used to describe these processes concludes part two. Part three builds on lessons from the first parts of the book to explore major topics in the fields of evolutionary ecology, ecological genetics, and applied population biology. The text illustrates the combined use of established theories and models with modern technologies to solve current problems in ecology or applied biology. It is a useful resource for students of genetics, ecology, and evolutionary ecology alike.

Contents for *Population Biology. The evolution and ecology of populations*: Preface, Introduction, Genetic Variation, Allelic and Genotypic Frequencies, Selection, Mutation, Gene Flow, Genetic Drift, Nonrandom Mating, Quantitative Traits, Factors Affecting Distribution and Abundance, Population Density and Dispersion, Population Growth, Demography, Interspecific Competition, Predator-Prey Interactions, Ecological Models of Selection, Adaptation and Speciation, Molecular Variation and Evolution, The Evolution of Social Behavior, Demographic Genetics and Life-History Evolution, Coevolution and the Evolution of Interspecific Interactions, Applied Population Biology, Conclusions to Part 3, Glossary, Bibliography, Answers to Numerical Questions, Author Index, and Subject Index.—*Charlotte Bryant.*